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EXAMINER

MIGGINS, MICHAEL C

ART UNIT PAPER NUMBER

1772

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,390

Applicant(s)

OBESHAU, DALE FRANCIS

Examiner

Michael C. Miggins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 15-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11, 13, 31 and 32 is/are allowed.
- 6) ☒ Claim(s) 1-10, 30, 33 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 1-34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/1/04, 11/4/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Claims 15-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/4/03.
2. This application contains claims 15-29 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the instant rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

WITHDRAWN REJECTIONS

3. All of the rejections previous to the instant office action have been withdrawn.

Response to Arguments

4. Applicant's arguments with respect to claims 1-14 and 30-34 have been considered but are moot in view of the new ground(s) of rejection.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 12 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 12 recites the limitation "on that portion" in line 2. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 14 recites the limitation "on that end portion" in claim 14. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-7, 9-10 and 30, 33-34 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claims 1-20 of copending Application No. 09/899,320, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No.

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09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 in view of Quigley (U.S. Patent No. 5,048,441).

Claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 all recite a contoured structural member, comprising at least one contoured inner layer comprising a composite or material, at least one contoured outer layer comprising a composite material, wherein the structural member has a closed configuration, wherein the composite material is a reinforced resin matrix material, wherein the reinforced resin matrix material comprises at least one prepreg ply, wherein both the at least one inner layer and the at least one outer layer comprise a composite material (applies to instant claims 1-3, 5, 10, 30 and 33-34).

With regards to claim 30, claim 30 recites the same structures as are recited in independent claims 1, 10. It has been found that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966

(Fed. Cir. 1985). Therefore any process limitations recited in claim 30 have been given little to no patentable weight.

Copending Application No. 09/899,390, copending Application No. 09/668,429, copending Application No. 09/704,228, copending Application No. 09/900,762, or copending Application No. 09/809,778 all recite applicant's invention substantially as claimed. However, none of the copending applications recite a contoured structural member wherein a portion of an outer surface of the structural member has a polygonal shape, wherein the interior region is hollow, partially filled or completely filled, wherein the prepreg material comprises a plurality of layers, wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to about 90 degrees and further comprising an over wrap on the polygonal surface of the outer surface of the structural member.

Quigley teaches a contoured structural member (column 2, lines 49-56) wherein a portion of an outer surface of the structural member has a polygonal shape (column 2, lines 49-56), wherein the interior region is hollow, partially filled or completely filled (11 from Fig. 9 and column 8, lines 40-45), wherein a prepreg material (column 7, line 35 through column 8, line 16) comprises a plurality of layers (column 3, lines 18-22, column 4, line 67 through column 5, line 4, column 5, lines 15-20), wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to about 90 degrees (column 2, line 60 through column 3, line 7, column 4, lines 14-34 and column 5, lines 5-15) and further comprising an over wrap on the polygonal surface of the outer surface of the structural member (38 from Fig. 1 and column 5, lines 5-32) (applies to instant claims 1,

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4, 6-9, 10 and 33-34) for the purpose of providing low weight and cost, high impact strength (column 5, lines 15-32).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided an outer surface of the structural member has a polygonal shape, wherein the interior region is hollow, partially filled or completely filled, wherein the prepreg material comprises a plurality of layers, wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to about 90 degrees and further comprising an over wrap on the polygonal surface of the outer surface of the structural member in the contoured structural members recited in Copending Application No. 09/899,390, copending Application No. 09/668,429, copending Application No. 09/704,228, copending Application No. 09/900,762, or copending Application No. 09/809,778 in order to provide low weight and cost, high impact strength as taught or suggested by Quigley.

11. Claim 8 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claims 1-20 of copending Application No. 09/899,320, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 in view of Quigley (U.S. Patent No. 5,048,441), as applied to claims 1-7, 9-10, 30 and 33-34 above, and further in view of Reid et al. (U.S. Patent No. 6,308,809).

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Copending Application No. 09/899,390, copending Application No. 09/668,429, copending Application No. 09/704,228, copending Application No. 09/900,762, or copending Application No. 09/809,778 all recite applicant's invention substantially as claimed. However, none of the copending applications recite a contoured structural member, wherein the structural member has at least one end with the at the at least one initiator not located near the at least one end.

Read et al. teach a contoured structural tube (abstract, Figs. 2a and 2b), wherein the structural member has at least one end with the at the at least one initiator not located near the at least one end (18 from Fig. 3a) for the purpose of providing reduced crush initiation forces in composite tubes for absorption of impact energy.

Therefore it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have provided at least one end with the at the at least one initiator not located near the at least one end in the contoured structural member of the copending applications in order to provide reduced crush initiation forces in composite tubes for absorption of impact energy as taught or suggest by Reid et al..

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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13. Claims 1-7, 9-10, 30 and 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Quigley (U.S. Patent No. 5,048,441).

Quigley teaches a contoured structural member (column 2, lines 48-56), comprising at least one contoured inner layer comprising a composite material (16 from Fig. 1 and column 2, line 54 through column 3, line 22), at least one contoured outer layer comprising a composite material (22 from Fig. 1 and column 3, line 23 through column 5, line 4) and wherein a portion of the outer surface of the structural member has a polygonal shape (column 2, lines 48-56), wherein the structural member has a closed configuration (see Fig. 1), an interior region defined by an inner surface of the at least one inner layer, wherein the interior region is hollow, partially filled, or completely filled (11 from Fig. 9 and column 8, lines 40-45), wherein the at least one of the composite materials is formed from a prepreg material (column 7, line 35 through column 8, line 16), wherein the prepreg material comprises a plurality of layers (column 3, lines 18-22, column 4, line 67 through column 5, line 4, column 5, lines 15-20), wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to 90 degrees (column 2, line 60 through column 3, line 7, column 4, lines 14-34 and column 5, lines 5-15), an overwrap on a portion of the outer surface of the structural member (38 from Fig. 1 and column 5, lines 5-32) (applies to instant claims 1-7, 9-14 and 30, 33-34).

With regards to claim 30, claim 30 recites the same structures as are recited in independent claims 1, 10. It has been found that even though product-by-process claims are limited by and defined by the process, determination of patentability is based

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on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore any process limitations recited in claim 30 have been given little to no patentable weight.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley (U.S. Patent No. 5,048,441) in view of Reid et al. (U.S. Patent No. 6,308,809).

Quigley discloses applicant's invention substantially as claimed. However, Quigley fails to disclose a contoured structural member, wherein the structural member has at least one end with the at the at least one initiator not located near the at least one end.

Reid et al. teach a contoured structural tube (abstract, Figs. 2a and 2b), wherein the structural member has at least one end with the at the at least one initiator not

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located near the at least one end (18 from Fig. 3a) for the purpose of providing reduced crush initiation forces in composite tubes for absorption of impact energy.

Therefore it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have provided at least one end with the at the at least one initiator not located near the at least one end in the contoured structural member of Quigley in order to provide reduced crush initiation forces in composite tubes for absorption of impact energy as taught or suggest by Reid et al..

Allowable Subject Matter

16. Claims 11, 13 and 31-32 are allowed. The reason claims 11, 13 and 31-32 are allowed is applicant's recited contoured structural member wherein a composite overwrap collar is disposed on the polygonal outer surface. Quigley teaches a composite overwrap on a polygonal outer surface but does not teach an overwrap collar which is disposed on the polygonal outer surface. According to applicant's specification the overwrap collar is critical to a polygonal structural member since the collar can be selectively placed on the polygonal outer surface to prevent the product from exploding (see instant specification page 14, paragraph 36). Such an arrangement is not suggested by the prior art and is not obvious in view of Quigley because Quigley discloses that overwrap 38 is applied to the entire polygonal surface to improve impact strength (column 5, lines 5-32) and thus modifying the overwrap of Quigley to replace it with the overwrap collar of applicant's invention would weaken the impact strength disclosed in Quigley and thus destroy the invention of Quigley for its original intent.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (571) 272-1494. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Miggins
Examiner
Art Unit 1772



MCM
February 15, 2005